



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|------------------------|---------------------|------------------|
| 10/611,783 | 06/30/2003 | Wade L. Hennessey | KON03-0003 | 1898 |
| 22835 7590 01/27/2009 PARK, VAUGHAN & FLEMING LLP 2820 FIFTH STREET DAVIS, CA 95618-7759 | | | | |
| EXAMINER SWEARINGEN, JEFFREY R | | | | |
| ART UNIT 2445 | | PAPER NUMBER | | |
| MAIL DATE 01/27/2009 | | DELIVERY MODE PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/611,783

Applicant(s)

HENNESSEY ET AL.

Examiner

Jeffrey R. Swearingen

Art Unit

2445

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 10/16/2008 have been fully considered but they are not persuasive.
2. Applicant added the amended language *identifying the client as a potential candidate server for the requested content* and *adding the client to a list of potential candidate servers*. Auerbach functions by determining who wants to download the content, who has the content, and routing the content appropriately. Auerbach discloses that "client/server environments, content servers, and networks are well documented in the technical, trade, and patent literature", admitting they are well known to one of ordinary skill in the art. In Auerbach, column 7, lines 18-30, the process is detailed of 1) identifying the requesting server and 2) identifying where the content is present on the network.
3. Applicant's new claim language *identifies the client as a potential candidate server for the requested content and adds the client to a list of potential candidate server*. In other words, if a computer requests to download the content, then said computer can serve said content. This is the same function as taught above in Auerbach. A client requests content. After the client has requested the content, the network knows that the client now possesses the content and can act as a server, or the network "determines the location of...servers that can potentially fill the needs of the clients...". Auerbach, column 7, lines 27-30.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
5. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Auerbach (US 6,832,253) in view of Martija et al. (US 7,039,689).

Art Unit: 2445

6. In regard to claim 1, Auerbach disclosed a proximity-based content control method which "propagates" or positions content based upon the "proximity" between various nodes on a network. See Applicant's characterization of Auerbach, remarks, 4/25/08, page 8.

In regard to claims 1, 10, 19, Auerbach disclosed:

receiving a request for content from a client at a directory server; column 6, lines 42-43

identifying the client as a potential candidate server for the requested content; column 7,

lines 18-30

adding the client to a list of potential candidate servers; column 7, lines 18-30

determining if the client is a member of an arena in a list of arenas, wherein an arena is a specified set of nodes on a network; column 6, lines 27-40. Determining whether a client is a member of an arena is done by proximity between the client and potential video servers. *and*

if the client is a member of the arena, applying routing rules to the delivery of content to the client, including routing rules specific to the arena. Column 8, lines 56-67 define proximity as functioning along a specific network path.

Auerbach failed to disclose an arena defining a group of nodes wherein at least one arena has a plurality of nodes. However, Martija, in the analogous field of art of content distribution networks, disclosed a geographical system of treating multiple hosts in a network. Martija, column 3, lines 10-13. A database was used to record metrics about each geographical region of nodes. Martija, column 4, lines 1-4. This information is used to calculate hop and vector distances for routing purposes. Martija, column 2, lines 10-15, lines 24-31.

Auerbach disclosed it was well known in the art to transmit content to a point based upon the hop count of the distance. Auerbach, column 1, lines 35-54. Auerbach suggested that geographic location may be considered as a factor to identify the proximity of content in a network. Auerbach, column 1, lines 55-67. Martija was able to group sets of nodes and calculate the sets hop and distance vector metrics based upon geographic grouping of nodes. Martija, column 3, lines 10-13. It would have been obvious to one of ordinary skill in the art at the time of invention to expand the proximity location system of Auerbach

Art Unit: 2445

with the geographical groupings of Martija in order to allow a system to work with small entities, local organizations, corporations, or ISPs instead of limiting the system to individual hosts. Martija, column 1, lines 48-54.

7. In regard to claims 2, 11, 20, Auerbach further disclosed:

defining an arena by receiving input from a user and using the input to specify one or more edge routers that surround nodes on the network that are members of the arena. The content control system receives or otherwise identifies the location of one or more clients requesting content. Column 7, line 21. When the user requests the content in column 6, this is the input. The input determines the proximity, which in turn specifies the edge routers surrounding nodes on the network that are members of the arena. Column 7, lines 18-67.

8. In regard to claims 3, 12, 22, Auerbach further disclosed:

after an arena is defined, a node can be dynamically assigned to and removed from the arena as the node is physically moved. Proximity is determined by ping, routing protocols, routing tables, and traceroute. See columns 9 and 10 for multiple ways to dynamically change the arenas as the node is moved based on the actual path calculations performed by these network management tools.

9. In regard to claims 4, 13, 23, Auerbach further disclosed:

defining an arena by receiving input from an administrator and using the input to specify a list of addresses for nodes that comprise the arena. See routing tables in column 10, lines 33-42.

10. In regard to claims 5, 14, 24, Auerbach further disclosed:

a routing rule can prohibit traffic across a specific network link. A bad proximity is attributed to a circuit in column 9, line 17.

11. In regard to claims 6, 15, 25, Auerbach further disclosed:

a routing rule can prohibit traffic across a specific network link when the network link reaches a predetermined utilization. Quality of Service is used in determining proximity in column

Art Unit: 2445

9, lines 42-50. Network links are labeled based on bandwidth and average traffic in column 10, line 16.

12. In regard to claims 7, 16, 26, Auerbach further disclosed:

the routing rule specifies a maximum amount of bandwidth that can be used for content delivery purposes on a specific network link. Quality of service in column 9, lines 42-50.

13. In regard to claims 8, 17, 27, Auerbach further disclosed:

applying routing rules to the delivery of content to the client involves

attempting to receive content at the client from nodes on a local subnet;

if no nodes are available on the local subnet, attempting to receive the content from nodes in a local arena;

if no nodes are available on the local arena, attempting to receive the content from nodes in non-local arenas as specified by a fallback list;

if no nodes are available on non-local arenas, attempting to receive the content from nodes that are topologically close on a router graph, wherein the router graph specifies how the nodes on the network are interconnected; and

if no nodes are available on the router graph, attempting to receive the content from an origin server.

This claim uses routing rules based on multiple proximities. Multiple proximities are taught in column 13, lines 31-39. The packets are transmitted based upon their "proximity" to the server and the client. A local subnet would be the nearest proximity. If the local subnet was not available, local nodes would be the next proximity. If the local arena nodes were not available, topologically close nodes would be a lower proximity, and the origin server would be the lowest proximity. See further column 9, lines 4-24.

14. In regard to claims 9, 18, 28, Auerbach further disclosed:

the fallback list for arenas specifies an ordering of arenas. Routing tables specify preferred outgoing lines in column 10, lines 33-42.

15. In regard to claim 21, Auerbach further disclosed:

the routing rules specific to the arena include one or more of: an order of precedence for fallback within match sets, an order of precedence for fallback between match sets, identification of sets to avoid, and rules for when to return to an origin server.

Column 8, lines 56-67 define proximity as functioning along a specific network path. This is an *order of precedence for fallback within match sets.*

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- | | |
|----------------------|-----------------|
| 17. Hudson et al. | US 2003/0204605 |
| 18. Traversat et al. | US 7,401,153 |
| 19. Traversat et al. | US 7,340,500 |
| 20. Bornstein et al. | US 7,274,658 |
| 21. Abdelaziz et al. | US 7,263,560 |
| 22. Day | US 7,219,153 |
| 23. Sim | US 7,181,523 |
24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2445

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Donaghue can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey R. Swearingen
Examiner
Art Unit 2445

/J. R. S./
Examiner, Art Unit 2445

/Larry D Donaghue/
Primary Examiner, Art Unit 2454